6th Grade Curriculum Requirements

Requirement	Description	What SEPMN Can Do
I.A.1.b Classify	Use scientific (e.g., field guides, charts, periodic tables, etc.) and identification keys for classification.	Students will use an identification key created by NOAA for the species they will be observing from their samples.
I.A.2.c.	Obtain scientific information from a variety of sources (such as Internet, electronic encyclopedia, journals, community resources, etc.).	The SEPMN web site will have a resources section to help students find related books, journals, etc. for phytoplankton research. The web site itself will also serve as a valuable tool for students.
I.A.2.g.	Organize data in tables and graphs.	Data that the students report will need to be placed in an Excel spreadsheet provided to them.
I.A.3.	Use appropriate tools and techniques to gather, analyze, and interpret data. a. Select and use appropriate tools and technology (such as calculators, computers, probes, thermometers, balances, spring scales, microscopes, binoculars, and hand lenses) to perform tests, collect data, and display data.	Students will be using plankton nets and microscopes for collecting water samples and identifying them as well as various tools to test the water.
I.A.8.	Use mathematics in all aspects of scientific inquiry.	Students will be able to estimate the size of algae by using a compound microscope. Students will also be able to explain how measurements in metric units are used in reporting about algae and their blooms. Finally, students will be able to use the metric system and the appropriate equipment to make measurements of length. There are several mathematics exercises in the textbook Algae: A Sourcebook for Teaching about Harmful Algal Blooms.
I.C.3.	Science and Technology are reciprocal. a. Explain how science and technology are essential to each other.	Students will learn about a geographic information systems (GIS) database and how entering data into this type of system will be very helpful for data analysis.
II.A.1.	Important levels of organization for structure and function include cells and whole organisms. All organisms are composed of cells - the fundamental unit of life.	Students will be able to explore unicellular organisms and learn about its structure and function.

III.A.1-3.	Structure of the Earth System - Water	Students will be able to look at specific aquatic organisms (phytoplankton) and study their habitat. Sampling for the SEPMN will occur in all bodies of water in and surrounding South Carolina. This exercise will enable students to further their understanding of different types of aquatic environments.
Unit of Study	Forms and Transfer of Energy C.3. Heat moves in predictable ways, flowing from warmer to cooler objects, until both reach the same temperature. b. Investigate the effects of temperature differences on the movement of water.	Students can observe temperature changes for their sites by comparing the differences from each sampling trip.